



MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Office of the General Manager

June 22, 1998

Mr. Wayne Praskins
U.S. EPA Region IX
75 Hawthorne Street (H-6)
San Francisco, California 94105

Dear Mr. Praskins:

Comments on Phase 2 Treatability Study Work Plan, Perchlorate in Groundwater, Baldwin Park Operable Unit, San Gabriel Basin

The draft work plan entitled "Phase 2 Treatability Study Work Plan, Perchlorate in Groundwater, Baldwin Park Operable Unit, San Gabriel Basin," prepared by Harding Lawson Associates, was reviewed by the Metropolitan Water District of Southern California (Metropolitan). It is important to note that the following comments are focusing on the treatment process reliability, the operational margin of safety, and the stability of treatment performance for perchlorate and nitrate removals by an anoxic biological treatment for the production of the potable water in compliance with the existing and future drinking water regulations. Comments on any issues regarding the integration of this anoxic biological treatment with other treatment processes for removing other contaminants are also included.

General Comments

Metropolitan understands the proposed study is designed to demonstrate that the product water meets all Title 22 drinking water quality regulations and to verify an anoxic biological treatment technology for perchlorate and nitrate reduction to achieve 18 µg/L perchlorate limit or lower and 0.1 mg/L nitrate (as nitrogen) limit or lower. For the protection of public health and the compliance with the existing and future drinking water regulation, it is important to include the following water quality studies in the proposed study:

1. Investigate the formation of disinfection by-products in the product water.
2. Study the potential biological regrowth in the distribution system due to high nutrient levels in the product water (ethanol, methanol, total phosphorus, and ammonia nitrogen).

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3. Identify intermediate by-products from biodegradation.
4. Verify no pathogenic microorganisms in the product water.
5. Develop the treatment process reliability, the operational margin of safety, and the stability of the treatment performance for removing all concerned contaminants.
6. Develop robust treatment technologies to ensure no other contaminants (e.g., N-Nitrosodimethylamine, etc.) are in the product water.

A plan for the detailed testing protocol, sampling locations, monitoring frequency, monitoring parameters, analytical methods (for drinking water applications) should be included in this work plan.

Specific Comments

- (1) Page 1 Left column, paragraph 1, lines 1-9 - Metropolitan is to assist the Three Valleys Municipal Water District in this BPOU project, therefore, the statement should be changed to ".....(EPA) and Three Valleys Municipal Water District (TVMWD) in association with Metropolitan Water District of Southern California (MWD)....."
- (2) Page 2 Left column, paragraph 3 - The purpose of the Phase 2 Treatability Study is not only to demonstrate perchlorate and nitrate destruction in the San Gabriel Basin groundwater but also to demonstrate that the product water meets all Title 22 drinking water quality regulations. Therefore, this paragraph should be modified.
- (3) Page 4 Right column under Subtitle 4.0 Phase 2 Objectives - The aforementioned water quality studies (mentioned above under General Comments) should be included as part of the Phase 2 objectives.
- (4) Page 5 Right column, paragraph 4 (under Subtitle 4.3 Treated Water Drinking Water Quality), lines 2 to 4 - Metropolitan's criteria for acceptance of treated water into the distribution systems includes that the downstream customers determine the acceptable water quality levels in Metropolitan's distribution system. Therefore, some water quality parameters may be required to be treated to achieve a level lower than federal and state requirements for a drinking water supply.

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Conclusion

The proposed Phase 2 work plan is intended to demonstrate the potability of the product water produced from the proposed treatment processes including an anoxic biological treatment for perchlorate and nitrate removals, air stripping for volatile organic compound removal, and other processes for disinfection and turbidity reduction. Metropolitan will be glad to work with the BPOU Steering Committee to investigate the treatment processes for the BPOU project.

Metropolitan appreciates the opportunity to provide input into this draft Phase 2 work plan. If you have any questions regarding our comments, please call Dr. Sun Liang at (909) 392-5273.

Very truly yours,



Jeanne-Marie Bruno, P.E.

Acting Associate Director of Water Quality

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